CCR Fugitive Dust Control Plan

City of Columbia, Missouri
Water & Light Department

Columbia Municipal Power Plant
More's Lake Inactive Surface Impoundment
& City of Columbia Sanitary Landfill
Project No. 93647

Revision 0
March 2017

CCR Fugitive Dust Control Plan

prepared for

City of Columbia, Missouri
Water & Light Department
Columbia Municipal Power Plant
More's Lake Inactive Surface Impoundment
& City of Columbia Sanitary Landfill
Columbia, Missouri

Project No. 93647

Revision 0
March 2017

prepared by

Burns & McDonnell Engineering Company, Inc.
Kansas City, Missouri

INDEX AND CERTIFICATION

City of Columbia, Missouri
Water & Light Department
CCR Fugitive Dust Control Plan
Project No. 93647

Report Index

Certification

I hereby certify, as a Professional Engineer in the state of Missouri, that the information in this document was assembled under my direct personal charge. This report is not intended or represented to be suitable for reuse by the City of Columbia, Missouri Water & Light Department or others without specific verification or adaptation by the Engineer.

Brian C. Weis, P.E.

Date: 3/30/2017

Brian C. Weis
License Number 2011000962

My license renewal date is December 31, 2017

Page or sheets covered by this seal: As noted above.

04/14/17

TABLE OF CONTENTS

Page No.

LIST OF TABLES

Page No.

LIST OF ABBREVIATIONS

Abbreviation	Term/Phrase/Name
CCR	Coal Combustion Residuals
EPA	Environmental Protection Agency

1.0 INTRODUCTION

On April 17, 2015, the Environmental Protection Agency (EPA) issued the final version of the federal coal combustion residuals rule (CCR Rule) to regulate the disposal of CCR materials generated at coal-fired units. The rule is being administered as part of the Resource Conservation and Recovery Act (RCRA, 42 U.S.C. §6901 et seq.), using the Subtitle D approach.

The City of Columbia, Missouri (City) is subject to the CCR Rule and as such has developed a Fugitive Dust Control Plan for all sites handling and disposing of CCR per 40 CFR 257.80. This report provides the Fugitive Dust Control Plan for the Columbia Municipal Power Plant (Plant) located in Columbia, Missouri as well as the City of Columbia Sanitary Landfill (Landfill). The Power Plant produced electricity for the City by burning coal from 1912 until September 2015. A man made pond adjacent to the Plant known as More's Lake was historically used as a surface impoundment to store the CCR material. The surface impoundment is now inactive and the City plans to clean close the surface impoundment and restore More's Lake to its former state by 2019. The material that is removed from the inactive surface impoundment will be hauled and placed in the Landfill.

This Fugitive Dust Control Plan is in addition to, not in place of, any other applicable site permits, environmental standards, or work safety practices.

2.0 PLAN OBJECTIVES

The Fugitive Dust Control Plan (Plan) identifies the City control measures and practices to minimize and control fugitive dust as required by the CCR Rule. The Plan defines the ways in which City personnel and subcontractors will mitigate CCR dust emissions at the Plant, the Landfill, and during transport.

To meet these objectives, the Fugitive Dust Control Plan:

- Identifies potential CCR fugitive dust sources at the facilities;
- Identifies control measures and practices to control and minimize fugitive dust;
- Identifies fugitive dust control record keeping requirements; and
- Identifies fugitive dust control notification requirements.

3.0 FUGITIVE DUST SOURCES AND CONTROLS

The City owns the Columbia Municipal Power Plant (Power Plant), which formerly included two coal-fired boiler units. Coal combustion residuals (CCR) produced at the Power Plant were stored in the adjacent surface impoundment, More's Lake. As part of the clean closure of this inactive surface impoundment, CCR material will be excavated and hauled to the Columbia Sanitary Landfill (Landfill) where it will either be utilized for beneficial reuse in roadways or disposed of in the Landfill waste mass. In addition to the controls outlined in this plan, the City adheres to controls and Best Management Practices (BMP) that are required and outlined in site permits and plans. The City also holds Contractors responsible for controlling fugitive dust both at the Power Plant and Landfill.

Table 3-1 lists the CCR related fugitive dust sources identified at the facilities.

Table 3-1: CCR Fugitive Dust Sources

Source Name	Description
CCR Impoundment	The original disposal area for sluiced CCR, adjacent to the plant.
Haul Roads	Transport roads around the perimeter of the impoundment and between the Plant and Landfill.
Landfill	The planned area for final disposal of the CCR material currently contained within the inactive surface impoundment.

3.1 CCR Impoundment

Identification: The impoundment has been recently dewatered to enable the transport of the material; therefore, the CCR material could be susceptible to drying out. In addition, excavation and loading of the material has the potential to mobilize dust. Dust control measures are described in Table 3-2.

Table 3-2: Impoundment Control Measures

Control/Activity	Description
Water Trucks	Water trucks will be used as necessary to prevent fugitive dust from becoming airborne. Wetting CCR with water serves to condition the CCR material to a moisture content that will prevent wind dispersal.
Cover Materials	If other dust controls are not adequate in mitigating fugitive dust, the City will consider the use of cover materials to be applied to CCR within the impoundment boundary.

Control/Activity	Description
Minimize Loading Drop Distance	When excavating the material to be hauled to the landfill, operators will minimize the drop distance from excavators into haul trucks to minimize the mobilization of airborne particles.
Operations Halt	During abnormally high winds, excavation and hauling of CCR material will be halted until conditions improve.

3.2 Haul Roads

Identification: The plant has haul roads around the outer perimeter of the surface impoundment. It is possible that CCR material may get blown, spilled, or tracked onto this road. The public streets used for hauling material to the Landfill are to remain free of CCR material through execution of the controls outlined below in Table 3-3.

Table 3-3: Haul Roads Control Measures

Control/Activity	Description
Water Trucks	Water trucks will be used as necessary to prevent fugitive dust from the impoundment perimeter road from becoming airborne.
Dust Suppressant Chemical	If water trucks are not adequate for mitigating fugitive dust, chemical dust suppressant can be sprayed on haul roads.
Enclosed/Covered Trucks	All haul trucks are enclosed or will have covers to minimize fugitive dust as the material is transported from the site.
Clean Haul Trucks	The City and Contractors will inspect trucks for loose CCR material that may be adhered to the vehicle. If necessary, the trucks will be cleaned or will traverse a rock tracking bed to remove material from tires prior to traveling on the haul road or leaving the site.

3.3 Landfill

Identification: The City of Columbia Sanitary Landfill is the location planned for the final disposal of the material. Contractors will dump material hauled from the Plant in areas designated by the Landfill staff. Dust control measures are described in Table 3-4.

Table 3-4: Landfill Control Measures

Control/Activity	Description
Water Trucks	Water trucks will be used as necessary to prevent fugitive dust from becoming airborne. Wetting CCR with water serves to condition the CCR material to a moisture content that will prevent wind dispersal.
Cover Materials	If other dust controls are not adequate in mitigating fugitive dust, the City will consider the use of cover materials to be applied to the CCR placement area.

Control/Activity	Description
Minimize Placement Drop Distance	Contractors placing material in the landfill will minimize the drop distance from the truck to the receiving surface to minimize the mobilization of airborne particles.
Compact Material	CCR material will be compacted upon placement. This will, to the extent possible, bond particles to prevent airborne mobilization.
Operations Halt	During abnormally high winds, excavation and hauling of CCR material will be halted until conditions improve.

4.0 PROCEDURES FOR LOGGING CITIZEN COMPLAINTS

A specific requirement of the CCR Fugitive Dust Control Plan requires owners and operators of all CCR units to develop and implement formal procedures to log citizen complaints involving CCR fugitive dust events. These complaints must then be included as part of the annual CCR Fugitive Dust Control Report. This report must be placed in the operating record and on the owner or operator's publicly accessible internet site.

The City shall log citizen complaints as received on the log form in Appendix A. Citizens, groups, or agencies who wish to log a complaint may do so by calling the Columbia Water and Light Department 573-874-6236 or 573-874-7325 and asking to leave a message with the Power Production Superintendent in charge of fugitive dust issues, or by emailing wlmail@como.gov. Complaints can also be submitted in writing to:

Columbia Water and Light

Attn: Power Production Superintendent

P.O. Box 6015

Columbia, MO 65205

Complaints received by the Water and Light Department regarding CCR fugitive dust at the Landfill site will be logged and the information will be internally transferred to the Landfill Superintendent in the Solid Waste Utility Department.

5.0 PERIODIC ASSESSMENT OF THE PLAN

The City may amend the written CCR Fugitive Dust Control Plan at any time. However, the City must amend the written plan whenever there is a change in conditions that would substantially affect the written plan. The plan and any subsequent amendments must be certified by a qualified professional engineer. As with other requirements of this rule, in order to ensure that the provisions of the fugitive dust criteria are maintained throughout the operating life of the CCR unit, the City is required to prepare an annual CCR Fugitive Dust Control Report, describing any additional actions taken to control CCR fugitive dust beyond what is described in the plan, a record of all citizen complaints, and a summary of any corrective measures taken.

The City commits to the assessment of this plan, at a minimum, on an annual basis, during preparation of the annual CCR Fugitive Dust Control Report to identify deficiencies or additional BMPs.

6.0 ANNUAL REPORT

The City is required to prepare an annual CCR Fugitive Dust Control Report that includes:

- A description of the actions taken by the owner or operator to control CCR fugitive dust,
- A record of all citizen complaints, and
- A summary of any corrective measures taken.

The initial annual report must be completed no later than 14 months after placing the initial CCR Fugitive Dust Control Plan in the facility's operating record. The deadline for completing a subsequent report is one year after the date of completing the previous report. The annual CCR Fugitive Dust Control Report is complete when the plan has been placed in the facility's operating record.

APPENDIX A - CITIZEN COMPLAINT LOG

More's Lake Inactive Surface Impoundment – CCR Fugitive Dust Complaint Log

Date	Individual, Group, or Affiliation	Nature of Complaint	Action Taken to Mitigate Fugitive Emissions

More's Lake Inactive Surface Impoundment – CCR Fugitive Dust Complaint Log

Date	Plaintiff Location, Group, or Affiliation	Nature of Complaint	Action Taken to Mitigate Fugitive Emissions

BURNS McDONNELL

CREATE AMAZING.

Burns & McDonnell World Headquarters
9400 Ward Parkway
Kansas City, MO 64114
O 816-333-9400
F 816-333-3690
www.burnsmcd.com